

## REMARKS

This is intended as a full and complete response to the Office Action dated August 8, 2005, having a shortened statutory period for response set to expire on November 8, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1 - 30 remain pending in the application and are shown above. Claims 17 – 30 stand withdrawn by the Examiner and cancelled by the applicants. Claims 1 - 16 stand rejected by the Examiner. Claims 1, 4-5 and 15 have been amended to clarify the invention. New claims 31-37 have been added. Applicants believe that new matter is not introduced with the amendment and new claims. Reconsideration of the rejected claims is requested for reasons presented below.

### ***Claim Objections***

The Examiner has objected to claim 12 because of the informality in line 1. The word “know” should be changed to “known”. Applicants have made the appropriate correction as recommended by the Examiner.

### ***Claim Rejections – 35 USC § 102***

Claims 1-3, 9 and 13-15 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Woodcock et al.* (5,540,096, hereafter *Woodcock* ).

Applicants respectfully traverse this rejection.

*Woodcock* discloses a method for detecting physical conditions of a pipe using an apparatus (100) having an impact source (110) and at least one sensor (112). *Woodcock* teaches generating a sonic or ultrasonic wave by impacting a wall of the pipe using the impact source (110) and measuring the reflected wave to determine physical conditions of the pipe (Column 4, lines 38-67). The acoustical characteristic in *Woodcock* comes from the impact source (110) striking the pipeline, not from an interaction between a pipeline pig and the pipeline generated by passing the pipeline pig through the pipeline.

Therefore, *Woodcock* does not teach generating an interaction between a pipeline pig and an inner diameter of a pipeline by passing the pipeline pig through the pipeline, generating data representative of an acoustical characteristic of the pipeline from the interaction between the pipeline pig and the inner diameter of the pipeline, and analyzing the data to determine a condition of the pipeline, as recited by amended claim 1, and claims dependent thereon. Therefore, claims 1-3, 9, and 13-14 are believed to be in condition for allowance.

Similarly, *Woodcock* does not teach passing a pipeline pig axially through a pipeline, and using the axial motion of the pipeline pig to generate an interaction between the pipeline pig and an inner surface of the pipeline, as recited in amended claim 15. Therefore, claim 15 is believed to be in condition for allowance.

Withdrawal of this rejection is respectfully requested.

Claims 1-3, 7, 8, and 11-16 stand rejected under 35 U.S.C. 103(b) as being anticipated by *Hunt et al.* (5,385,049, hereafter *Hunt*).

Applicants respectfully traverse this rejection.

*Hunt* discloses a method of inspecting a pipeline using a pipeline pig (1) having a shaker (22) and accelerometers (50-53). The shaker (22) transmits a vibration to a pipeline to produce a measurable motion in the pipeline, and the accelerometers (50-53) measure the motion of the pipeline to inspect the pipeline (Column 3 line 60-column 4 line 26). *Hunt* teaches using the shaker (22) to cause a vibration of the pig (1), transmitting the vibration of the pig (1) to the pipeline, and measuring the vibration response of the pipeline. However, *Hunt* does not teach generating an interaction between a pipeline pig and the pipeline by passing the pipeline pig through the pipeline as claimed in the present invention. Additionally, *Hunt* teaches that the pig (1) remains in one location during a measuring circle (Figure 4) and is dynamically rigid over the working frequency so that the pig and the pipeline move as one (column 4 lines 21-29). Therefore, *Hunt* teaches away from passing a pipeline pig through a pipeline to generate an interaction between the pipeline pig and an inner surface of the pipeline.

Thus, *Hunt* does not teach or suggest each and every limitation set forth in amended claim 1, and claims dependent thereon. Therefore, claims 1-3, 7-8 and 11-14 are believed to be in condition for allowance.

Similarly, *Hunt* does not teach or suggest passing a pipeline pig axially through a pipeline, and using the axial motion of the pipeline pig to generate an interaction between the pipeline pig and an inner surface of the pipeline, as recited in amended claim 15. Therefore, claims 15-16 are believed to be in condition for allowance.

Withdrawal of this rejection is respectfully requested.

### ***Claim Rejections – 35 USC § 103***

Claims 4-7 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Woodcock* in view of *Barzarov et al.* (6,772,637, hereafter *Barzarov*).

Applicants respectfully traverse this rejection.

As discussed above, *Woodcock* does not teach or suggest each and every limitation set forth in claim 1. *Barzarov* discloses a method for inspecting a pipeline using an inspection pig having transducers which emit ultrasonic pulses to the pipeline and receive reflected ultrasonic pulses from the pipeline. *Barzarov*, however, does not teach or suggest passing a pipeline pig through a pipeline to generate an interaction between the pipeline pig and an inner surface of the pipeline, as recited in claim 1. The combination of *Woodcock* and *Barzarov* does not teach or suggest each and every limitation of claim 1, on which claims 4-7 and 10 are dependent.

Therefore, claims 4-7 and 10 are believed to be in condition for allowance. Withdrawal of this rejection is respectfully requested.

Claims 4-6, 9 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Hunt* in view of *Bazarov*.

Applicants respectfully traverse this rejection.

*Hunt* and *Bazarov* are discussed above. *Hunt* and *Bazarov*, alone or in combination, do not teach or suggest each and every limitation set forth in claim 1, on which claims 4-6 and 9-10 are dependent.

Therefore, claims 4-6 and 9-10 are believed to be in condition for allowance. Withdrawal of this rejection is respectfully requested.

***New Claims***

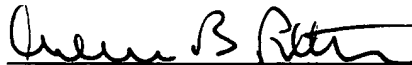
Applicants respectfully submit that new claims 31-37 include subject matter not taught or suggested by the references. Allowance of claims 31-37 is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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